

REMARKS

By this amendment, claims 49-52 have been added. Accordingly, claims 1, 2, 4, 6-15, and 39-52 are pending in the present application. The new claims are supported by the specification, the accompanying figures, and the claims as originally filed, with no new matter being added. Accordingly, favorable reconsideration of the pending claims is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 4, 6-15, and 39-48 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,424,652 to Hembree et al. (hereinafter "*Hembree*") in view of U.S. Patent No. 4, 712,161 to Pryor et al. (hereinafter "*Pryor*"), and U.S. Patent No. 5,621,333 to Long et al. (hereinafter "*Long*") for the reasons set forth on pages 2-3 of the Office Action. Applicants respectfully traverse.

Hembree discloses a die 24 positioned on a substrate insert 14 ("interposer") that is on the bottom shelf 12 of a housing 10. The housing 10 has bond shelves 16 that are elevated above the bottom shelf and other shelves, higher than the bond shelves, wherein the peripheral edges of a lid 30, 40 are supported. Thus, the die sits on a substrate insert within a well formed by the housing. The housing has leads 28, which are configured for coupling to a test fixture.

The Examiner refers to insert 14 as an interposer that is analogous to the presently claimed invention. Applicant respectfully disagrees and asserts that it is the combination of insert 14 and housing 10 that is more correctly analogous to the presently claimed interposers. As described in the present application, an interposer is a device used to couple a semiconductive device to an electrical

device, such as a computer. *See* specification at page 2, lines 8-11. Thus, the preamble of each present independent claim recites: “[a]n interposer for electrically coupling a semiconductive device to an electrical apparatus.” The insert 14 referred to by the Examiner does not directly couple the semiconductive device to the electrical apparatus. Rather, the insert is attached to the housing, which in turn directly couples to an electrical device through leads 28. *See Hembree* at Figures 1-5 and column 4, lines 19-27.

Further, *Hembree*’s interposer comprising insert 14 and housing 10 does not disclose the interposers recited in present claims 1 and 42-44, which include both receiving and terminal ends of an electrical conductor on the planar surface of a substrate or sheet. The receiving ends (insert contacts 20) and terminal ends (leads 28) of *Hembree*’s electrical conductor are clearly not on the same planar surface of a substrate or sheet.

Nevertheless, assuming, *arguendo*, that *Hembree*’s insert 14 is an interposer analogous to the interposer recited in the present claims, it is a more complex structure (and requires more complex additional structures) than is recited in the present claims, having additional structural elements and a different arrangement of structural elements than is recited in the presently pending claims. For example, the insert 14 is attached to housing 10 by wire bonds, which add complexity and expense. *See* specification from page 3, line 25 to page 4, line 1. Such an attachment of the insert to the housing via wire bonds also does not “structurally support[] said substrate with said terminal end in electrical contact with said electric apparatus,” as is recited in present claims 1, 10, 13-15, and 45, with language variations in each claim.

To further emphasize this difference, claim 51 has been added to recite: “wherein the

substrate is configured for removably coupling with the electrical apparatus.” Support for this amendment can be found at page 5, lines 23-24 of the application as filed. *Hembree’s* insert 14 is clearly not removably coupled to housing 10.

Neither *Pryor* nor *Long* overcome the above shortcomings of *Hembree*. Applicant therefore respectfully asserts that the presently pending claims are patentable over the cited references.

Accordingly, for at least the above reasons, the presently pending claims are not obvious over the cited references. Applicants therefore respectfully request that the rejections of the claims under 35 U.S.C. § 103(a) be withdrawn.

3. New Claims

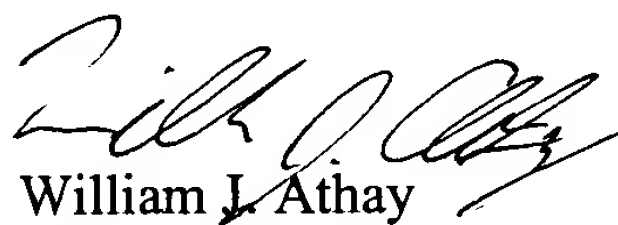
Claims 49-52 have been added to recite additional features of the invention that impart further patentability to the claims over the cited references. The prompt allowance of these claims is therefore respectfully requested.

CONCLUSION

In view of the foregoing, Applicants respectfully request favorable reconsideration and allowance of the present claims. In the event the Examiner finds any remaining impediment to the prompt allowance of this application that could be clarified by a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney.

Dated this 10th day of October 2002.

Respectfully submitted,



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